

## **SUS: MODELING PERCEPTION AND IMAGERY PROCESSES**

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### **Abstract**

Perception and imagination are part of the visual capabilities of the human cognitive system. Whereas perception is concerned with sensory information, imagination is attributed to the “higher” cognitive functions. The system that tries to imitate the visual thinking should have the capabilities to incorporate both perception and imagination in process of understanding. In this paper the system of shape understanding that utilizes the perception and imagery as a part of its visual thinking task is presented. The system of shape understanding that is implementation of the shape understanding method operates based on the knowledge of the image processing, decision making and the search strategies as well as the knowledge of shape description and representation distributed among the specialized experts.

**KEYWORDS:** perception, imagination, visual thinking, visual concept, a shape understanding system